METAL RAILING 461

**460.04.01** Joints in structures will not be measured but the cost will be incidental to the pertinent Superstructure Concrete item.

- **460.04.02** When an item for Modifying Existing Bridge Roadway Joints is included in the Contract Documents, the cost of furnishing, fabricating, placing, etc., of new structural steel, new roadway seals, modifying existing joints on bridge roadway including saw cutting and removal of existing concrete, new concrete, steel plates, cutting of existing steel, welding, drainage troughs, catch basins, downspouts, etc., shall also be included in the Contract unit price per linear foot for the item. The measurement will include the horizontal distance from the inside face to inside face of parapets plus the vertical distance of the curb faces and parapets.
- **460.04.03** When an item for Drainage Trough for Bridge is included in the Contract Documents, the furnishing and placing of drainage troughs including catch basins, downspouts, structural steel and hardware will be measured and paid for at the pertinent Contract unit price per linear foot. This price will include cutting of angles, painting, drilling of concrete, expansion bolts, etc. The measurement will be the center line distance from end to end of the installed drainage trough fabric.

## SECTION 461 — METAL RAILING

- **461.01 DESCRIPTION.** This work shall consist of furnishing, fabricating, coating, and erecting of all metal railings as specified in the Contract Documents.
- **461.02 MATERIALS.** Materials shall be as specified in the Contract Documents.
- **461.03 CONSTRUCTION.** All railings shall be fabricated and erected as specified in the Contract Documents.

The Contractor shall furnish working drawings for approval by the Engineer.

**461.03.01 Production, Handling and Shipment.** Metal railings and incidental parts shall be carefully handled and stored on blocking, racks, or platforms to prohibit contact with the ground and shall be protected from corrosion or damage. Materials shall be kept free from dirt, oil, grease, and other foreign matter. Surfaces to be painted shall be carefully protected both in the shop and in the field. Damaged material shall be repaired or replaced as directed by the Engineer at no additional cost to the Administration.

- **461.04 MEASUREMENT AND PAYMENT.** The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work.
- **461.04.01** Metal Railing will be measured and paid for at the Contract unit price per linear foot.
- **461.04.02** Metal Railing will not be measured but will be paid for at the Contract lump sum price.
- **461.04.03** Metal railing for which no specific item is included in the Contract Documents will not be measured but the cost will be incidental to other pertinent items included in the Contract Documents.

## **SECTION 462 — TIMBER STRUCTURES**

**462.01 DESCRIPTION.** This work shall consist of constructing structures or portions of structures using timber, including fabrication, erecting, treating and coating of the timber elements as specified in the Contract Documents or as directed by the Engineer.

For timber piling refer to Section 410. For structural steel refer to Section 430. For concrete refer to Section 420.

## 462.02 MATERIALS.

Asphalt Cement	904.01
Structural Steel	909.01
Gray Iron Castings	909.04
Bolts and Hardware	909.10
Structural Timber	921.05
Preservative Treatments	
for Timber	921.06
Metal Timber Connectors	Per manufacturer &
	approved by the Engineer
Galvanizing	Á 153
Fire Stops and Galvanized	
Sheet Metal	A 653, Coating Designation
	G 90

## 462.03 CONSTRUCTION.

**462.03.01 Storage and Handling.** Timber shall be open stacked in piles at least 12 in. above the ground surface in a manner to shed water and prevent warping. It shall be protected from weather by a suitable